

Caring skills in nursing students at a university

Luz M. Caballero-Apaza,¹ Rubén Vidal-Espinoza,² Silvia D. Curaca Arroyo,¹
Denices S. Abarca-Fernández,¹ Rossana Gomez-Campos,^{3,4} Marco Cossio-Bolaños^{3,4}

¹Escuela Profesional de Enfermería, Universidad Nacional del Altiplano de Puno, Puno, Perú;

²Universidad Católica Silva Henríquez, Santiago, Chile; ³Universidad Católica del Maule, Talca, Chile; ⁴Faculty of Education, Psychology and Sports Sciences, University of Huelva, Huelva, Spain.

This article is distributed under the terms of the Creative Commons Attribution Noncommercial License (CC BY-NC 4.0) which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

Abstract

Caring skills are essential in the training of nursing professionals, because they allow them to learn and gain experience in the quality and compassionate care of future patients. The objective is to compare the Caring Skills (CS) in nursing students according to age range, experience and family environment. A descriptive comparative study was carried out. The sample consisted of 176 nursing students from a Peruvian university. The age range was 18 to 27 years. A patient care skills scale was applied. This scale has three indicators (knowledge, courage and patience) and 37 questions. There were no differences in the three indicators (knowledge, courage and patience) when compared by age range ($P>0.05$). There were significant differences when compared by age range between students living with family and living alone ($P<0.05$). There was no difference between students who had experience vs. those who had no experience in patient care ($P>0.05$). It was determined that age and living with family members are determinant in the CS of nursing students of a Peruvian university. There were no differences between experienced and inexperienced students.

Key Words: caring skills, students, nursing.

Eur J Transl Myol 35 (1) 12968, 2025 doi: 10.4081/ejtm.2025.12968

Caring skills (CS) in patients are a set of skills that health care professionals should present, such as providing compassionate patient-centered care.¹ Human caring is an art that can be learned through nursing education and other educational programs.²

The development of CS is essential for nursing students, in essential in undergraduate education, as it allows them to learn and gain experience in quality and compassionate care of future patients.

Likewise, CSs are essential in nursing students, as they can help them build rapport with their patients, increase their own satisfaction in caring for their patients, and use these conversations to constantly reevaluate their plans for treating their future patients.³

In fact, nurses' CSs encompass knowledge, attitudes and skills.⁴ These skills are largely influenced by the environment.⁵ For example, they are influenced by several factors, including education and training, experience, professional development, clinical judgment, decision-making skills, and communication.⁶

In essence, during academic and professional training, the

interaction between the nursing student and the patient is greatly affected by the student's knowledge and skills. This is because, more knowledge will help the student to establish the right caring behavior and trust towards patients.⁷

Therefore, it is important to study CS in nursing students, given that the role of future nurses is to preserve patient safety and prevent harm during the provision of care in both short and long-term care settings.⁸

Therefore, nursing students must learn to effectively articulate to patients and their families. This is because, within professional and clinical competencies, clinical competencies are highlighted as having to do with adherence to clinical guidelines and effective nursing interventions.⁹ It even encompasses technical and communication skills, knowledge, clinical reasoning, emotions and values in the clinical setting.¹⁰

Consequently, assessing CS in nursing students could provide valuable information, especially in a sample of female nursing students. Where they present a wide age range, previous caregiving experiences, including whether or not they live alone, could affect how they perceive CSs.

Therefore, the aim of this study was to compare CS in nursing students according to age ranges, experience, and family environment.

Materials and Methods

Type of study and sample

A descriptive (comparative) study was designed in 176 female nursing students of a Peruvian university. The sample was non-probabilistic (accidental). The age range was 18 to 27 years.

All the volunteers were enrolled in a university in their third and fourth year. Data were collected in August 2023. All students who were enrolled in the nursing program and those who authorized participation in the study were included in the study. Students who were not within the age limit and those who did not show up on the day of the application of the scale were excluded. The study was conducted in accordance with the Helsinki declaration and the local ethics committee.

Techniques and procedures

Data collection was carried out at the university facilities from Monday to Friday from 8:30 a.m. to 12:00 noon. The survey technique was used to measure the CS. The instrument used was the Nkongho scale.¹¹ This scale has three indicators (knowledge, value and patience), and a total of 37 questions. The alternatives were Likert-type: for example, 1 to 7 alternatives were used, where 7 indicates a higher degree of attention when the statement is positive. In the case of negative items, the score is inverted.

The scale was applied in a traditional pencil-and-paper manner. The entire procedure was carried out by two of the researchers. The time it took to apply the scale was 15 to 20 minutes.

Statistics

The normal distribution of the data was verified by means of Kolmogorov-Smirnov. All data were normal. Descriptive statistics (mean, standard deviation, range and percentage) were calculated. Differences between age groups were performed by one-way ANOVA and Tukey’s test of specificity. Differences between the two groups (with and without experience) and (living with relatives and living alone) were compared with t-test for independent samples. In all cases, $p < 0.05$ was adopted. Calculations were performed in Excel spreadsheets and SPSS 18.0.

Results

The majority of the participants in this study are between 18 and 23 years of age, with a slight predominance in the 18 to 20 years age group. Regarding their living environment, more than half live with their family, while the rest live alone. Regarding experience in caring for others, the sample is fairly balanced. Although a small majority have no experience in this aspect. Finally, regarding the prevalence of CS, almost all participants are in the middle level, with very few at the extremes of high or low prevalence.

This distribution suggests that the sample is mostly young, with a life shared with relatives, and limited experience in caring for others, while the prevalence of CS tends to be moderate in most cases (Table 1).

Comparisons in the CS indicators by age range, living environment and experience in patient care are shown in Table 2. There were no differences in the three indicators (knowledge, courage and patience) when compared by age range ($P > 0.05$). In addition, there were no differences between students who, according to living environment, between those living with family and alone, and according to experience (between those with experience and those without). On the contrary, we verified significant differences in the CS in the total values, whereas the age range increases, the mean values of CS increase ($P < 0.05$).

Comparisons of the CS according to living environment and experience are observed in Figure 1. Students living with family presented higher mean values at 18-20 years (CS: 180.23 ± 17.05 points) and 21-23 years (186 ± 18.10 points) compared to those living alone (18-20 years with 174 ± 18.80 points and 21-23 years with 178.9 ± 15.49 points). There were no differences in the last age range at 24-27 years between both groups (with family: 186.18 ± 9.62 points and live alone: 186.25 ± 14.48 points). In the comparison between young women with [18-20 years: 176.32 ± 19.31 points, 21-23 years: 181.23 ± 23.6 points and 24-27 years: 185.67 ± 10.58 points] and without

Table 1. Characteristics of the sample studied.

Variables	n	%
Ages (years)		
18 a 20	86	48.8
21 a 23	73	41.5
24 a 27	17	9.7
Total	176	100
Living environment		
Lives with family	97	55.1
Lives alone	79	44.9
Total	176	100
Caregiving experience		
Experienced	84	47.7
No experience	92	52.3
Total	176	100
CS Prevalence		
High	1	0.56
Medium	145	82.4
Low	30	17.1
Total	176	100

CS, caring skills.

Caring skills in nursing students

Eur J Transl Myol 35 (1) 12968, 2025 doi: 10.4081/ejtm.2025.12968

experiences [18-20 years: 176.09±16.8 points, 21-23 years: 181.66±19.62 points and 24-27 years: 184.75±12.39 points]. There were no differences between both groups and in the three age categories ($P>0.05$).

Discussion

The aim of this study was to compare CS in nursing students according to age range, experience and family environment. The results have shown that young nursing students living with family members presented better aver-

age CS values than their peers living alone. In addition, we verified that there was no difference between students who had experience in caregiving versus those who had no experience. This demonstrates that age is a determinant variable in the CS of the students investigated, especially in the group living with relatives and in general. As age increases, the higher the age, the better the CSs.

These results indicate that CS in nursing students are affected by age, although the literature reports that CS are influenced by a combination of several factors, such as age, experience, income and education.^{12,13}

Table 2. Comparison of CS according to age ranges, family environment and experience.

Variables	n	I. knowledge		I. courage		I. patience		Total, CS	
		X	DE	X	DE	X	DE	X	DE
Ages									
18-20	87	74.7	11.9	43.3	8.4	57.5	8.2	175.4	18
21-23	73	75.9	13.1	45.9	10.8	60.3	10	182.1	21.7a
24-27	16	76.6	7	47.6	8.7	60.8	6.4	187	10.8a,b
Living environment									
Lives with family	97	75.6	11.3	44.8	9.7	59.8	6.8	180.2	17.1
Lives alone	79	75.4	12.7	44.5	9.7	57.9	10.9	177.8	21.7
Caregiving experience									
Experienced	83	76.2	12	44	9.9	59.3	10.5	179.6	20.3
No experience	93	74.8	11.9	45.3	9.5	58.4	7.1	178.4	18.3

X, mean; SD, standard deviation; I, indicator; CS, caring skills, a, significant difference in relation to 18-20 years; b, significant difference in relation to 21-23 years.

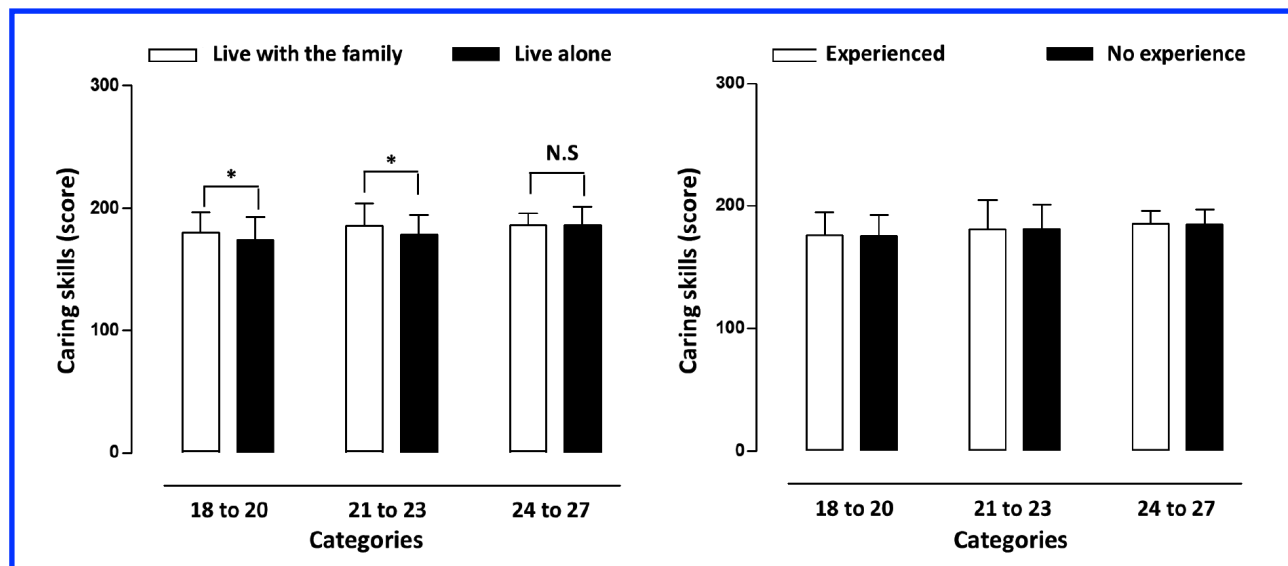


Figure 1. Comparison of CS by age range, according to living environment and CS experience in nursing students. *Significant difference in relation to living alone.

Caring skills in nursing students

Eur J Transl Myol 35 (1) 12968, 2025 doi: 10.4081/ejtm.2025.12968

Future studies should pay attention to these indicators, since there are nurse-patient interactions, in which a variety of attitudes and behaviors are presented in the humanistic, relational and clinical areas.^{14,15} Therefore, future nurses must learn to assess, plan and provide medical care aimed at meeting basic human needs regardless of age and experience. This planning for patient and other care helps professionals in training to communicate quality information, facilitating continuity of care with their patients.¹⁶ Especially when it comes to providing medical care aimed at meeting the basic human needs of patients.¹⁵

In general, scientific evidence shows that nurses between 21 and 35 years of age have little experience and are not competent enough to meet patients' needs and provide high quality care.¹⁷ Therefore, it is necessary that future nurses rely on technical, interpersonal and organizational skills.¹⁸

In essence, it is critical that university educators and clinical nurses should emphasize the importance of caring skill development in internship planning and encourage nursing students to become more involved with patients.¹⁹ This will make it possible to improve health care and can provide quality care and demonstrate high levels of patient safety.²⁰

In sum, nurses have a central role in providing emotional and psychological support to patients and their families in all settings, such as supporting the patient during diagnosis and ensuring optimal care.²¹ This is achievable through health literacy, as it is here that effective communication skills can be developed and facilitated between professional care providers and the public or clients.²²

In essence, it highlights that age is essential in patient care, as older patients experience positive experiences relative to younger patients. Although they often reflect higher levels of depression, memory loss, and anxiety.²³ Indeed, future studies should further investigate these dynamics to better understand caregiving in patients, not only in nursing students but in health care professionals.

This study had some weaknesses and strengths that should be described. It was not possible to control for variables such as parental schooling and we were limited to studying only women. Other studies in the future should control for these variables, as it is possible that men may show differences in CS with patients. Also the type and size of the sample could show some bias in the results. Therefore, it is necessary to select a probabilistic sample, which could help to generalize the results obtained. This is one of the first studies carried out in Peru in nursing students, so it could be considered as a baseline for future comparisons.

Conclusions

In conclusion, it was determined that age and living with family members are determinants in the CS of nursing students at a Peruvian university. There were no differences between students with and without experience. These results suggest that as the students increase in age and live with a family member, they present better skills to attend their future patients.

List of abbreviations

CS, Caring skills
X, mean
SD, standard deviation
I, Indicator

Conflict of interest

The authors declare no potential conflict of interest, and all authors confirm accuracy.

Ethics approval

The Ethics Committee of Universidad Nacional del Altiplano approved this study (15-2023/CIEI-UNA-Puno). The study is conformed with the Helsinki Declaration of 1964, as revised in 2013, concerning human and animal rights.

Informed consent

All patients participating in this study signed a written informed consent form for participating in this study.

Patient consent for publication

Written informed consent was obtained from a legally authorized representative(s) for anonymized patient information to be published in this article.

Availability of data and materials

All data generated or analyzed during this study are included in this published article.

Corresponding author

Marco Cossio Bolaños, Universidad Católica del Maule,
Av. San Miguel 3605, Talca, Chile.
ORCID ID: 0000-0001-7230-9996
E-mail: mcoscio1972@hotmail.com

Co authors

Luz M. Caballero-Apaza
ORCID ID: 0000-0002-2105-9007
E-mail: lmcaballero@unap.edu.pe

Rubén Vidal-Espinoza
ORCID ID: 0000-0002-8593-5248
E-mail: rvidale@gmail.com

Silvia D Curaca-Arroyo
ORCID ID: 0000-0002-8470-1378
E-mail: sdcuraca@unap.edu.pe

Denices S Abarca Fernandez
ORCID ID: 0000-0002-1638-8252
E-mail: dsabarca@unap.edu.pe

Caring skills in nursing students

Eur J Transl Myol 35 (1) 12968, 2025 doi: 10.4081/ejtm.2025.12968

Rossana Gomez Campos
ORCID ID: 0000-0001-6509-5707
E-mail: rossaunicamp@gmail.com

References

1. Institute of Medicine (IM) Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington (DC): National Academies Press (US); 2001.
2. Amir S, Sabiha Kh, Sheraz Kh, et al. The Clinical Caring Skills of Undergraduate Nursing Students; A Longitudinal Study. *OSP J Radiol* 2023;2:JOR-2-108
3. Tribble C, Merrill WH. In Your Own Words: Toward a More Perfect Union of Patient Care and Education. *Ann Thorac Surg* 2016;101:837-40.
4. Numminen O, Leino-Kilpi H, Isoaho H, Meretoja R. Newly Graduated Nurses' Competence and Individual and Organizational Factors: A Multivariate Analysis. *J Nurs Scholarsh* 2015;47:446-57.
5. Tabari-Khomeiran R, Kiger A, Parsa-Yekta Z, Ahmadi F. Competence development among nurses: the process of constant interaction. *J Contin Educ Nurs* 2007; 38:211-8.
6. Gardulf A, Nilsson J, Florin J, et al. The Nurse Professional Competence (NPC) Scale: Self-reported competence among nursing students on the point of graduation. *Nurse Educ Today* 2016;36:165-71.
7. Kinchen E. Holistic Nursing Values in Nurse Practitioner Education. *Int J Nurs Educ Scholarsh* 2019; 16:82.
8. Vaismoradi M, Tella S, A Logan P, Khakurel J, Vizcaya-Moreno F. Nurses' Adherence to Patient Safety Principles: A Systematic Review. *Int J Environ Res Public Health* 2020;17:2028.
9. Ye J, Tao W, Yang L, et al. Developing core competencies for clinical nurse educators: An e-Delphi-study. *Nurse Educ Today* 2022;109:105217.
10. Alshammari MH, Alenezi A. Nursing workforce competencies and job satisfaction: the role of technology integration, self-efficacy, social support, and prior experience. *BMC Nurs* 2023;22:308.
11. Nkongho N. The caring ability inventory. En: Strickland OL, Dilorio C, Waltz CF, *Measurement of nursing outcomes: Measuring client self – care and coping skills*. Volumen 4. New York .1990: p.3-16.
12. Coşkun S, Bebiş H. Effects of health promotion courses on development of healthy lifestyle behaviors and e-health literacy in nursing. *Gülhane Tıp Derg* 2019; 61:52.
13. Kim MT, Kim KB, Ko J, et al. Health Literacy and Outcomes of a Community-Based Self-Help Intervention: A Case of Korean Americans With Type 2 Diabetes. *Nurs Res* 2020;69:210-8.
14. Cossette S, Cara C, Ricard N, Pepin J. Assessing nurse-patient interactions from a caring perspective: report of the development and preliminary psychometric testing of the Caring Nurse--Patient Interactions Scale. *Int J Nurs Stud* 2005;42:673-86.
15. Vujančić J, Mikšić Š, Barać I, et al. Patients' and Nurses' Perceptions of Importance of Caring Nurse-Patient Interactions: Do They Differ? *Healthcare (Basel)* 2022; 10:554.
16. NICE. National Institute for Clinical Excellence. What to expect during assessment and care planning. 2021. Available from: <https://tinyurl.com/63hm5vvp> (accessed 1 December 2023).
17. Salonen AH, Kaunonen M, Meretoja R, Tarkka MT. Competence profiles of recently registered nurses working in intensive and emergency settings. *J Nurs Manag* 2007;15:792-800.
18. Adeniran RK, Bhattacharya A, Adeniran AA. Professional excellence and career advancement in nursing: a conceptual framework for clinical leadership development. *Nurs Adm Q* 2012;36:41-51.
19. Hu S, Chen J, Jiang R, et al. Caring ability of nursing students pre- and post-internship: a longitudinal study. *BMC Nurs* 2022;21:133.
20. International Council of Nurses (ICN). (2019). Patient safety-ICN position. Available from: https://www.icn.ch/sites/default/files/inline-files/D05_Patient_Safety_0.pdf
21. Karaca A, Durna Z. Patient satisfaction with the quality of nursing care. *Nurs Open* 2019;6:535-45.
22. Wilandika A, Pandin MGR, Yusuf A. The roles of nurses in supporting health literacy: a scoping review. *Front Public Health* 2023;11:1022803.
23. Wittenberg Y, de Boer A, Plaisier I, et al. Informal caregivers' judgements on sharing care with home care professionals from an intersectional perspective: the influence of personal and situational characteristics. *Scand J Caring Sci* 2019;33:1006-16.

Disclaimer

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.

Submitted: 25 August 2024.

Accepted: 9 October 2024.

Early access: 11 March 2025.